



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/597,891

06/19/2000

John S. Hendricks

SEDN/5314

5541

56015 7590 08/21/2007

PATTERSON & SHERIDAN, LLP/
SEDNA PATENT SERVICES, LLC
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

KOENIG, ANDREW Y

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

08/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/597,891	Applicant(s) HENDRICKS ET AL.	
	Examiner Andrew Y. Koenig	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-29, 31-36, 38-51 and 53-55 is/are pending in the application.
- 4a) Of the above claim(s) 45-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-29, 31-36, 38-44, 49-51 and 53-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7, 9-29, 31-36, 38-44, 49-51, and 53-55 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 25 May 2007 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant argues that the combination of Esch, Wilkins, and Hoarty fail to teach combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information.... and a cable franchise control signal generator that generates cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information and is integrated with the program control information signal. The examiner disagrees; Esch teaches a scheduling processor (71) for providing content data signal directed to a plurality of cable headends (col. 2, ll. 4-7), wherein the cable headend specific information signal is a schedule data inserted as a digital tag to the content data signal (col. 3, ll. 56-59, col. 4, ll. 16-17), which reads on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable

headend specific information. Further, the teaching of Esch is independent of Hoarty, which generates additional cable headend specific information for the end-users.

Further, the examiner notes that the applicant appears to misconstrue the examiner's position (see pg. 16, para. 3 of remarks) in that the applicant argues that Esch fails to teach or suggest the limitation of combining a cable headend specific information signal and the packaged program signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. The examiner disagrees; at the relied upon portion is directed to headend module and not the coordination among headends.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,099,319 to Esch et al. (Esch) in view of U.S. Patent 5,446,919 to Wilkins and U.S. Patent 5,526,034 to Hoarty et al. (Hoarty).

Regarding claim 1, Esch teaches a scheduling processor (fig. 3, label 71) for scheduling information for merging content data signals with the video signals, which equates the program instructions for packaging programs for deliver using the television

program delivery system, wherein the television program delivery system includes a cable television system (col. 3, ll. 25-26, col. 5, ll. 28-40), as shown in figure 1. Esch teaches a program storage databases (see content database -76, live database 82, col. 5, ll. 5-11, col. 5, ll. 50-62).

Esch teaches an external program source (see figure 4) coupled to the CPU, wherein the external programs are received at the apparatus (col. 6, ll. 12-19). Esch teaches a scheduling processor (71) for providing content data signal directed to a plurality of cable headends (col. 2, ll. 4-7), wherein the cable headend specific information signal is a schedule data inserted as a digital tag to the content data signal (col. 3, ll. 56-59, col. 4, ll. 16-17), which reads on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. Further, Esch teaches a network processor for transmitting content data signals and schedule data signals as a digital stream to the modulator 85 (col. 5, ll. 50-62), which equates to a delivery control processor unit (DCPU) wherein a program control information signal is generated.

Esch teaches targeted advertising (col. 6, ll. 7-11), but is silent on a viewer information database coupled to a CPU. In analogous art, Wilkins teaches a viewer information database for storing viewer information (col. 8, ll. 15-29). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch by storing viewer information database coupled to a CPU as

taught by Wilkins in order to effectively transmit targeted advertising to subscribers (Wilkins: col. 6, ll. 26-42).

The combination of Esch and Wilkins teaches a headend analyzing information, wherein the information is a number of terminals connected to the headend, and integrating the headend specific information with the program control signal, in that Wilkins teaches transmitting demographic/psychographic information about the subscribers (col. 7, ll. 15-67, col. 10, ll. 59-60).

However, Esch and Wilkins are silent on integrating the cable franchise information with the program control information signal.

Hoarty teaches generation of an interactive service for accessing TV listings (col. 18, ll. 49-62) and searching programming (col. 19, ll. 20-47), which reads cable franchise information and program control information signal (see figure 6), and integrating the cable franchise information with the program control information signal (see figure 10, 33, 34, col. 6, ll. 8-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program control information signal of Esch and Wilkins by integrating the cable franchise information with the program control information signal as taught by Hoarty in order to efficiently provide interactivity and additional information to the user, such as the program lineup with cable franchise information, while also creating market presence for the cable franchise.

Regarding claim 2, Esch teaches master control stations (fig. 3, labels 79 and 80), which inherently has a data entry interface, however Esch is silent on interactively

selecting programs for delivery. Official Notice is taken that interactively selecting programs for delivery is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch by interactively selecting programs for delivery in order to dynamically modify the programming available to users.

Regarding claim 12, Esch teaches CACS studios that process source materials from internal and external sources, wherein the material includes audio, and text (col. 5, ll. 21-27). Esch teaches a quality control processor, which is part of the creation process and thus equates to creates programs based on the processed source materials (col. 5, ll. 41-49). Esch teaches a network processor (83) for formatting the content signals (col. 5, ll. 50-62), which equates to creating events comprising one or more programs. Esch teaches transmitting content and schedule data signals as a digital stream (col. 5, ll. 50-62), which equate to service including one or more events and assigning run times, but is silent on assigning run times and dates, and checking for conflicts. Further Esch is silent on adding events and service information to a menu. Official Notice is taken that assigning run times, checking conflicts, and adding the event and service to a menu are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch by assigning run times and dates, checking for conflicts, and adding the event and service to a menu in order to provide accurate information regarding events, thereby enabling the subscribers to access additional features.

Regarding claim 13, Esch teaches the programs comprising video signal comprising advertisements (col. 3, ll. 45-53).

5. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,099,319 to Esch et al. (Esch), U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), and U.S. Patent 5,223,924 to Strubbe in view of U.S. Patent 5,351,075 to Herz et al. (Herz).

Regarding claim 4, Esch, Wilkins, and Strubbe are silent on an optimum time. Herz teaches dynamically adjusting programming based on users (col. 6, ll. 46-68), which equates to an optimum time. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch, Wilkins, and Strubbe by determining an optimum time as taught by Herz in order to provide desirable programming during prime time viewing for the users.

Regarding claim 5, Esch, Wilkins, and Strubbe are silent on maximizing expected programs watched. Herz teaches the most requested programs are broadcast during prime time (col. 6, ll. 46-68), which equates to maximizing expected programs watched. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch, Wilkins, and Strubbe by maximizing expected programs watched as taught by Herz in order to provide desirable programming during prime time viewing for the users.

Regarding claim 6, Esch, Wilkins, and Strubbe are silent on maximizing viewer buy rates. Herz teaches maximizing expected programs watched (col. 6, ll. 46-68),

which also maximizes the buy rate in that more desirable programming is available during prime time (col. 8, ll. 39-44), which equates to maximizing the viewer buy rate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch, Wilkins, and Strubbe by maximizing the viewer buy rate as taught by Herz in order to increase the revenue of the system while enabling the users to customize the desirable programming.

Regarding claim 7, Esch, Wilkins, and Strubbe are silent on determining an optimum mix of programs, wherein the optimum mix of programs is based on one or more program substitutes, program complements, time slice positioning, program repetitions, transponder availability, and menu positioning. Herz teaches an optimum mix based on time slice positioning during prime time (col. 6, ll. 27-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch, Wilkins, and Strubbe by determining an optimum mix of programs based on time slice positioning as taught by Herz in order to increase the revenue of the system while enabling the users to customize the desirable programming.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,099,319 to Esch et al. (Esch), U.S. Patent 5,446,919 to Wilkins, and U.S. Patent 5,526,034 to Hoarty et al. (Hoarty) in view of U.S. Patent 5,583,560 to Florin et al. (Florin).

Regarding claim 9, Esch and Wilkins are silent on a determining menu forms and positions, providing a menu display, and providing on-the-fly menu editing. Florin

Art Unit: 2623

teaches different menus and forms, such as different forms of displays – see figures 12-19, 27-32), along with applying changing data, which equates to on-the-fly menu editing (col. 11, ll. 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch and Wilkins by determining menu forms and positions, providing a menu display, and providing on-the-fly menu editing as taught by Florin in order to dynamically adjust to programming changes and provide current information to the user.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,099,319 to Esch et al. (Esch), U.S. Patent 5,446,919 to Wilkins, and U.S. Patent 5,526,034 to Hoarty et al. (Hoarty) in view of U.S. Patent 5,351,075 to Herz et al. (Herz).

Regarding claim 10, Esch and Wilkins teaches packaging the program control information signal and the programs, but are silent on a graphical allocation display and providing interactive reallocation of transponder space. In analogous art, Herz teaches a graph of time slots for programming editing programming based on received information (col. 6, ll. 27-68), which equates to graphical allocation display and providing interactive reallocation of transponder space. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch and Wilkins by using a graphical allocation display and providing interactive reallocation of transponder space as taught by Herz in order to efficiently allocate programming by

maximizing the benefits of prime time viewing thereby enabling more desirable programming to be sent to viewers.

Regarding claim 11, Esch and Wilkins are silent on using importance weighting algorithms and best fit time algorithms to assign program time slots. Herz teaches determining the most popular programs during prime time (col. 6, ll. 27-68), which equates to importance weighting algorithms and best fit time algorithms to assign program time slots. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch and Wilkins by implementing importance weighting algorithms and best fit time algorithms to assign program time slots as taught by Herz in order to increase revenue while also providing desirable programming to viewers.

8. Claims 14, 15, 17-19, 25-27, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins in view of U.S. Patent 5,526,034 to Hoarty et al. (Hoarty) and U.S. Patent 5,099,319 to Esch et al. (Esch).

Regarding claim 14, Wilkins teaches collecting user information for one or more users in the network (col. 8, ll. 7-29), receiving program information related to available programs (col. 8, ll. 42-62), determining a program lineup based on the collected user information and the program information (col. 11, ll. 20-48), analyzing information related to a specific cable headend to generate a cable headend specific information signal (col. 8, ll. 7-14, col. 8, ll. 32-37: data of each of the subscribers' decoders is

analyzed to produce effective targeted information), providing the lineup to one or more terminals (col. 11, ll. 20-48).

Wilkins is silent on generating a program control information signal and combining the program lineup and the cable headend specific information signal comprising cable franchise information for transmission over the network, wherein the cable headend specific information signal is integrated with the program control information signal.

Hoarty teaches generation of an interactive service for accessing TV listings (col. 18, ll. 49-62) and searching programming (col. 19, ll. 20-47), which reads on generating a program control information signal, combining the program lineup and the cable headend specific information, wherein the cable headend specific information signal is integrated with the program control information signal (see figure 10, 33, 34, col. 6, ll. 8-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by generating a program control information signal and combining the program lineup and the cable headend specific information signal comprising cable franchise information for transmission over the network, wherein the cable headend specific information signal is integrated with the program control information signal as taught by Hoarty in order to efficiently provide interactivity and additional information to the user, such as the program lineup with cable franchise information, while also creating market presence for the cable franchise.

Hoarty and Wilkins are silent on a combining a cable headend specific information signal and the packaged program signal for transmission over the television

program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. Esch teaches a scheduling processor (71) for providing content data signal directed to a plurality of cable headends (col. 2, ll. 4-7), wherein the cable headend specific information signal is a schedule data inserted as a digital tag to the content data signal (col. 3, ll. 56-59, col. 4, ll. 16-17), which reads on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hoarty and Wilkins by combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information as taught by Esch in order to provide targeted programming to cable headends using the available bandwidth of the system.

Regarding claim 15, Wilkins teaches broadcasting the programs to the terminals in the network, there broadcast arranged according to the lineup (col. 11, ll. 20-48).

Regarding claim 17, Wilkins teaches program lineups for users (col. 11, ll. 20-48), wherein each of the lineups is determined based on information for a group of

users as defined by the advertisement characteristics, wherein the is broadcast according to the lineup (col. 9-10, ll. 60-11).

Regarding claim 18, Wilkins teaches users serviced by the headend (fig. 1A, 1B).

Regarding claim 19, Wilkins teaches that each of the targeted commercials (program lineup) and the broadcast program (program segment) are provided in a separate program channel (fig. 3).

Regarding claim 25, Wilkins teaches local commercials (col. 8, ll. 56-61, col. 9, ll. 60-64), which equates to a program lineup including local avails.

Regarding claim 26, Wilkins teaches targeted commercials (col. 10, ll. 59-61), which equates to program lineups provided directly to the terminals.

Regarding claim 27, Wilkins teaches satellite distribution (col. 8, ll. 66-68).

Regarding claim 31, Wilkins teaches cable distribution (col. 8, ll. 63-68).

Regarding claim 32, Wilkins teaches satellite distribution (col. 8, ll. 63-68), which equates to using over-the-air broadcasts.

Regarding claim 33, Wilkins teaches receiving the program lineup using the interval detection decoder (col. 11, ll. 27-37), and programs are provided using the tune (second communication device)(fig. 2).

Regarding claim 34, Wilkins teaches using the vertical interval of the video signal (col. 8, ll. 48-55), which equates to a first communications means is a dedicated channel.

9. Claims 16, 24, 35, 36, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), and U.S. Patent 5,099,319 to Esch et al. (Esch) in view of U.S. Patent 5,583,560 to Florin et al. (Florin)

Regarding claim 16, Wilkins teaches a unique program lineup determined for each terminal in the network (col. 7, ll. 15-37), and teaches providing the selected program to the user (col. 11, ll. 39-48), but is silent on receiving a program selection from a user, based on the unique lineup. In analogous art, Florin teaches a favorites menu and selecting programs from the menu (col. 3, ll. 40-44, col. 19, ll. 27-62, fig. 30), which equates to receiving a program selection from a user, based on the unique lineup. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by receiving a program selection from a user, based on the unique lineup as taught by Florin in order to facilitate easily selection of desirable programming.

Regarding claim 24, Wilkins teaches a unique program lineup determined for each terminal in the network (col. 7, ll. 15-37), and teaches providing the selected program to the user (col. 11, ll. 39-48), but is silent on receiving a program selection from a user, based on the unique lineup. In analogous art, Florin teaches a favorites menu and selecting programs from the menu (col. 3, ll. 40-44, col. 19, ll. 27-62, fig. 30), which equates to receiving a program selection from a user, based on the unique lineup. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by receiving a program selection from a

user, based on the unique lineup as taught by Florin in order to facilitate easily selection of desirable programming.

Regarding claims 35, Wilkins is silent on generating an original menu and a menu different from the original. In analogous art, Florin teaches generating menu format information to generate an original menu (see fig. 12-19) and a menu different from the original (see fig. 30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by generating menu format information to generate an original menu (see fig. 12-19) and a menu different from the original (see fig. 30) as taught by Florin in order to provide the user with the ability to access all programs and a menu directed to the user of the device, thereby facilitating program selection.

Regarding claims 36, Wilkins is silent on interactive services, subscription services, and data services. In analogous art, Florin teaches interactive services and subscription services (such as ordering programming as shown in figure 41) along with data services (such as ordering products as shown in figures 44-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by implementing interactive services, subscription services, and data services as taught by Florin in order to enable the user to easily access and order products and services using the same device.

Regarding claims 38, Wilkins and Florin are silent on online services for reserving airline seats. Official Notice is taken that online services for reserving airline seats are well known in the art. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Wilkins and Florin by using online services for reserving airline seats in order to facilitate the user in purchasing products online.

Regarding claims 39, the combination of Wilkins and Florin teaches subscription services based on a calendar period, in that the user order a program as shown in figure 41, col. 23, ll. 13-42 of Florin.

Regarding claims 40, Wilkins and Florin are silent on interactive services including education programs and games. Official Notice is taken that the use of interactive services including education programs and games is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins and Florin to use interactive services including education programs and games in order to provide useful information to the user thereby increasing interactivity.

10. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), and U.S. Patent 5,099,319 to Esch et al. (Esch) in view of U.S. Patent 5,223,924 to Strubbe.

Regarding claim 20, Wilkins teaches demographic information (col. 7, ll. 15-37), which is based upon the programming that is selected by the user (col. 10-11, ll. 54-5), which equates to user-provided data. However, Wilkins is silent on programs watched information. In analogous art, Strubbe teaches a database storing program information

data records of watched programs (col. 3-4, ll. 59-2, col. 4, ll. 17-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by using program watched information as taught by Strubbe in order to correlate targeted programming to the user, thereby increasing the effectiveness of the media.

Regarding claim 21, the combination of Wilkins and Strubbe teaches program viewing times and channel tuning information (Wilkins: col. 10-11, ll. 54-5, Strubbe: col. 4, ll. 33-38), but is silent on programs purchased information. Official Notice is taken that the use of purchased information is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins and Strubbe by monitoring purchased information in order to more effectively target the user with desirable programming.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), U.S. Patent 5,099,319 to Esch et al. (Esch), and U.S. Patent 5,223,924 to Strubbe in view of U.S. Patent 5,351,075 to Herz et al. (Herz).

Regarding claim 22, Wilkins and Strubbe are silent on an optimum program lineup and packaging the optimum lineup. Herz teaches dynamically adjusting programming based on users (col. 6, ll. 46-68), which equates to an optimum program lineup and packaging the optimum lineup. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Esch,

Wilkins, and Strubbe by determining an optimum program lineup and packaging the optimum lineup as taught by Herz in order to provide desirable programming during prime time viewing for the users.

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), U.S. Patent 5,099,319 to Esch et al. (Esch), and U.S. Patent 5,223,924 to Strubbe in view of U.S. Patent 55,027,400 to Baji et al.

Regarding claim 23, Wilkins is silent on program category information, channels assignments, programs on channels, program start/stop times, durations, program descriptions, and sample clips. In analogous art, Strubbe teaches type of program (claimed program category information including names of program categories), channels assigned to programming, program start and length (claims program start/stop time and duration), text summary (program description) for each program, which equates to programs available on each of the channels (col. 3-4, ll. 59-2, col. 6, ll. 25-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by program category information, channels assignments, programs on channels, program start/stop times, durations, program descriptions as taught by Strubbe in order to gather more detailed information on programming thereby enabling the system to effectively target content..

Wilkins and Strubbe are silent on sample video clips. In analogous art, Baji teaches sample video clips (col. 11, ll. 34-47), which equates to sample video clips. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins and Strubbe by using sample video clips as taught by Baji in order to preview information and determine whether the purchase the program.

13. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), and U.S. Patent 5,099,319 to Esch et al. (Esch) in view of U.S. Patent 5,351,075 to Herz et al. (Herz).

Regarding claim 41, Wilkins is silent on receiving marketing information, determining importance for each program, assigning a weighting factor, and positioning each of the available programs within the lineup. In analogous art, Herz teaches dynamically adjusting programming based on users (col. 6, ll. 46-68), receiving marketing information, determining importance for each program, assigning a weighting factor, and positioning each of the available programs within the lineup. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by receiving marketing information, determining importance for each program, assigning a weighting factor, and positioning each of the available programs within the lineup as taught by Herz in order to provide desirable programming during prime time viewing for the users.

Art Unit: 2623

Regarding claim 42, Wilkins is silent on maximizing yield management value. Herz teaches the most requested programs are broadcast during prime time (col. 6, ll. 46-68), which equates to maximizing yield management value. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by maximizing yield management value as taught by Herz in order to provide desirable programming during prime time viewing for the users.

Regarding claim 43, Wilkins is silent on maximizing yield management value. Herz teaches maximizing yield management value (col. 6, ll. 46-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by maximizing yield management value as taught by Herz in order to increase the revenue of the system while enabling the users to customize the desirable programming.

Regarding claim 44, Wilkins is silent on marketing information comprising profit value and program viewed information. Herz teaches an optimum mix based on time slice positioning during prime time (col. 6, ll. 27-68), which maximizes profit for programs viewed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wilkins by marketing information comprising profit value and program viewed information as taught by Herz in order to increase the revenue of the system while enabling the users to customize the desirable programming.

14. Claims 49-51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,583,560 to Florin et al. (Florin) in view of U.S. Patent 5,526,034 to Hoarty et al. (Hoarty) and U.S. Patent 5,099,319 to Esch et al. (Esch).

Regarding claim 49, Florin teaches receiving program listings on a dedicated channel (fig. 3a, label 100), which are clearly selected for packaging in order to be received, wherein the stream has the programs start time and length (col. 10-11, ll. 45-14), (which equates to program start times and dates). Florin teaches the frequency spectrum (fig. 3a), wherein the system inherently allocates transponder space, in that the system has shown how the frequencies are used. Florin teaches prices for programs as shown in figure 41, information for generating a program menu via the program listings channel (fig. 3a), which equates to a program control information signal, packaging the programs and program control information signal (see entire spectrum of fig 3a), and transmitting the programs and the program control information signal in that the signal is received (col. 10, ll. 33-44).

Florin is silent on analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal.

Hoarty teaches generation of an interactive service for accessing TV listings (col. 18, ll. 49-62) and searching programming (col. 19, ll. 20-47), which reads on analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend

specific information signal comprises cable franchise information integrated with the program control information signal (see figure 10, 33, 34, col. 6, ll. 8-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program control information signal of Florin by analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal as taught by Hoarty in order to efficiently provide interactivity and additional information to the user, such as the program lineup with cable franchise information, while also creating market presence for the cable franchise.

Hoarty and Florin are silent on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. Esch teaches a scheduling processor (71) for providing content data signal directed to a plurality of cable headends (col. 2, ll. 4-7), wherein the cable headend specific information signal is a schedule data inserted as a digital tag to the content data signal (col. 3, ll. 56-59, col. 4, ll. 16-17), which reads on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific

information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hoarty and Florin by combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information as taught by Esch in order to provide targeted programming to cable headends using the available bandwidth of the system.

Regarding claim 50, Florin teaches selecting types of programs for packaging and adding addition program elements, in that Florin teaches digital program listing channel, analog channels, pay-per-view channels, and addition digital channels (fig. 3a).

Regarding claim 51, Florin teaches program types of analog channels, pay-per-view channels, and addition digital channels (fig. 3a), which equates to pay-per-view and subscription programs, interactive programs and data services. Florin is silent on static programs and live event programs. Official Notice is taken that static programs and live event programs are known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by using static programs and live event programs in order to provide different information and types of media to the user, thereby increasing the information available to the user.

Regarding claim 53, Florin is silent on generating cable franchise information, and combining the information with the program control information signal and the

Art Unit: 2623

programming package. In analogous art, Hoarty teaches a cable franchise information of ICTV (col. 6, ll. 8-10), which is displayed at the user terminal as shown in figures 33 and 34, which equates to generating cable franchise information and sending the cable information along with the program control information and programming package as shown in figure 10. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by generating cable franchise information, and combining the information with the program control information signal and the programming package as taught by Hoarty in order to identify the cable franchise thereby creating market presence for the product.

15. Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,583,560 to Florin et al. (Florin) in view of U.S. Patent 5,526,034 to Hoarty et al. (Hoarty), U.S. Patent 5,446,919 to Wilkins, U.S. Patent 5,099,319 to Esch et al. (Esch) and U.S. Patent 5,027,400 to Baji et al. (Baji).

Regarding claim 54, Florin teaches displaying a program schedule and program menu (fig. 3a, 3b, 12-19), which equates to developing a program schedule and a program menu, but is silent on identifying time slots for local avails. In analogous art, Wilkins teaches identifying time slots for local avails (col. 8, ll. 56-61, col. 9, ll. 60-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by identifying time slots for local avails as taught by Wilkins in order to provide local commercials to viewers.

Further, Florin is teaches updating the program information (col. 11, ll. 8-15), which equates to editing the program schedule and program menu.

Florin is silent on identifying external programs comprising gathering programs from external sources and converting to a standard format, and identifying internal programs comprising accessing stored programs and converting to a standard format. In analogous art, Baji teaches a real-time external broadcast source (fig. 4, label 101) and internal sources (fig. 4, label 103) and converting to a standard format by modulator (fig. 4, 119). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by gathering programs from external sources and converting to a standard format, and identifying internal programs comprising accessing stored programs and converting to a standard format as taught by Baji in order to provide different sources of information to the user.

Florin is silent on identifying live programs, comprising signaling live program source feeds. Official Notice is taken that signal live source feeds is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by signaling live program source feeds in order to prepare the system for receiving the incoming signal, thereby enabling the system to effectively process in the incoming signal.

Florin as shown in figure 3a, teaches combining all the programs (as discussed above: external, internal, and live) and generating program signals based on the programming (figure 3b col. 10-11, ll. 33-14).

Florin is silent on analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal.

Hoarty teaches generation of an interactive service for accessing TV listings (col. 18, ll. 49-62) and searching programming (col. 19, ll. 20-47), which reads on analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal (see figure 10, 33, 34, col. 6, ll. 8-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program control information signal of Florin by analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal as taught by Hoarty in order to efficiently provide interactivity and additional information to the user, such as the program lineup with cable franchise information, while also creating market presence for the cable franchise.

Hoarty, Florin, and Wilkins are silent on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal

Art Unit: 2623

based on said cable headend specific information. Esch teaches a scheduling processor (71) for providing content data signal directed to a plurality of cable headends (col. 2, ll. 4-7), wherein the cable headend specific information signal is a schedule data inserted as a digital tag to the content data signal (col. 3, ll. 56-59, col. 4, ll. 16-17), which reads on a combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hoarty, Florin, and Wilkins by combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information as taught by Esch in order to provide targeted programming to cable headends using the available bandwidth of the system.

Regarding claim 55, Florin is silent on generating cable franchise information, and combining the information with the program control information signal and the programming package. In analogous art, Hoarty teaches a cable franchise information of ICTV (col. 6, ll. 14-17), which is displayed at the user terminal as shown in figures 33 and 34, which equates to generating cable franchise information and sending the cable information along with the program control information and programming package as

Art Unit: 2623

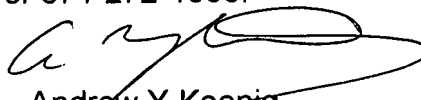
shown in figure 10. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Florin by generating cable franchise information, and combining the information with the program control information signal and the programming package as taught by Hoarty in order to identify the cable franchise thereby creating market presence for the product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Fr (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Andrew Y Koenig
Primary Examiner
Art Unit 2623

ayk